

**CHANNEL-SELECTIVE BLANKING FOR A MEDICAL DEVICE SYSTEM**  
**ABSTRACT OF THE INVENTION**

Apparatuses and methods selectively blank a neurological channel of a medical device system in the treatment of a nervous system disorder. A selected signal of a selected channel may be blanked if it is determined that the selected signal may be affected by an artifact when the medical device system delivers a treatment therapy. The selected signal may be blanked by hardware, in which the selected electrode is disconnected from the selected channel (which may include an selected amplifier) and is connected to a fixed voltage in order to avoid saturation of the selected amplifier. The selected channel may be blanked by software, in which a signal processor is instructed not to process neurological data on the selected channel for a determined time duration. Embodiments may combine hardware and software blanking for the selected signal.